AMENDMENT TO THE CLAIMS

1. (currently amended) A computer readable medium including instructions readable by a computer, which when implemented, cause the computer to classify data comprising the steps of:

receiving labeled data;

receiving unlabeled data;

constructing a first classifier and a second classifier using the labeled data;

performing uncertainty reduction comprising:

selecting instances from the unlabeled data that are uncertain with respect to the first classifier; and

selecting instances from the unlabeled data that are uncertain with respect to the second classifier;

labeling the instances uncertain to the first classifier using the second classifier to form a first labeled set;

labeling the instances uncertain to the second classifier using the first classifier to form a second labeled set;

~~modifying~~ re-constructing the first classifier and the second classifier ~~based on~~using the first labeled set and the second labeled set; and

providing the ~~modified~~re-constructed first classifier and the ~~modified~~re-constructed second classifier for use in labeling data.

2. (original) The computer readable medium of claim 1, wherein receiving labeled data includes receiving data assigned to classes and wherein receiving unlabeled data includes receiving data capable of being assigned to classes.

3. (original) The computer readable medium of claim 2, and further comprising reconstructing the first and second classifiers using at least the first labeled set.

4. (previously presented) The computer readable medium of claim 1, wherein selecting instances uncertain to the first classifier includes selecting instances of the unlabeled data as a function of uncertainty.

5. (original) The computer readable medium of claim 4, wherein selecting instances as a function of uncertainty includes calculating probabilities.

6. (original) The computer readable medium of claim 5, wherein calculating probabilities includes calculating probabilities that the first classifier is unable to label some instances of the unlabeled data.

7. (previously presented) The computer readable medium of claim 4, and further comprising calculating at least one value of uncertainty used to select the instances uncertain to the first classifier.

8. (currently amended) The computer readable medium of claim 7, wherein selecting instances uncertain to the first classifier includes selecting instances having uncertainty values ~~relative~~compared to a predetermined threshold.

9. (previously presented) The computer readable medium of claim 8, wherein selecting instances having uncertainty values includes selecting instances having uncertainty values below the predetermined threshold.

10. (canceled)

11. (previously presented) The computer readable medium of claim 1, and further comprising exchanging information between the first labeled and the second labeled set to form at least one shared set.

12. (original) The computer readable medium of claim 11, and further comprising reconstructing the first and second classifiers using the at least one shared set.

13. (previously presented) The computer readable medium of claim 1, wherein labeling the instances uncertain to the first classifier includes assigning instances in the first labeled set to a first set of classes, and wherein labeling the instances uncertain to the second classifier includes assigning instances in the second labeled set to a second set of classes.

14. (original) The computer readable medium of claim 13, wherein the first set of classes and the second set of classes are the same.

15. (original) The computer readable medium of claim 13, wherein the first set of classes and the second set of classes are different.

16. (original) The computer readable medium of claim 13, wherein the first set of classes and the second set of classes are mutually exclusive.

17. (original) The computer readable medium of claim 13, wherein the first set of classes and the second set of classes overlap by having classes in common.

18. (currently amended) The computer readable medium of claim 1, and further comprising selecting unlabeled data that is relatively-certain with respect to the first classifier.

19. (currently amended) The computer readable medium of claim 18, wherein selecting relatively certain unlabeled data includes selecting the most certain unlabeled data with respect to the first classifier.

20. (currently amended) The computer readable medium of claim 18, wherein selecting instances uncertain to the first classifier includes selecting data in the relatively certain data.

21. (currently amended) The computer readable medium of claim 18, wherein selecting instances uncertain to the first classifier includes selecting data not in the relatively-certain unlabeled data.

22. (currently amended) A computer readable medium including instructions readable by a computer, which when implemented, cause the computer to classify data comprising the steps of:

constructing a first classifier and a second classifier using received labeled instances;

using the first classifier to select unlabeled instances that are certain with respect to the first classifier;

selecting instances uncertain with respect to the second classifier from among the instances certain with respect to the first classifier to form a first set of unlabeled instances;

using the second classifier to select unlabeled instances that are certain with respect to the second classifier;

selecting instances uncertain with respect to the first classifier from among the instances certain with respect to the second classifier to form a second set of unlabeled instances;

~~modifying~~re-constructing the first classifier and the second classifier using the first set of unlabeled instances and the second set of unlabeled instances; and

providing the ~~modified~~re-constructed first classifier and the ~~modified~~re-constructed second classifier for labeling textual data to ascertain a meaning of the textual data.

23. (previously presented) The computer readable medium of claim 22, and further comprising:

labeling the first set of unlabeled instances using the first classifier to form a first labeled set;

labeling the second set of unlabeled instances using the second classifier to form a second labeled set;

adding the first labeled set and the second labeled set to the received labeled instances to form an augmented set.

24. (original) The computer readable medium of claim 23, and further reconstructing the first classifier and the second classifier using the augmented set.

25. (original) The computer readable medium of claim 24, wherein reconstructing the first and the second classifiers includes iteratively reconstructing the first and the second classifiers for each class of unlabeled instances.

26. (previously presented) The computer readable medium of claim 22 wherein the modified first classifier and the modified second classifier are provided to perform one of web page classification, bilingual bootstrapping and news article classification.

27. (currently amended) A method of training a classifier, the method comprising:

    receiving labeled data;

    receiving unlabeled data;

    constructing a first classifier and a second classifier using the labeled data;

    using the first classifier to select some of the unlabeled data that is certain with respect to the first classifier;

    selecting unlabeled data uncertain with respect to the second classifier from among the unlabeled data that is certain with respect to the first classifier to form a first set of unlabeled data;

    using the second classifier to select some of the unlabeled data that is certain with respect to the second classifier;

    selecting unlabeled data uncertain with respect to the first classifier from among the unlabeled data that is certain with respect to the second classifier to form a second set of unlabeled data;

    ~~modifying~~re-constructing the first classifier and the second classifier ~~based on~~using the first set of unlabeled data; and

    providing the ~~modified~~re-constructed first classifier and the ~~modified~~re-constructed second classifier for use in labeling textual data to ascertain a meaning of the textual data.

28. (original) The method of claim 27 wherein receiving unlabeled data includes receiving data capable of being assigned to classes, and wherein receiving labeled data includes receiving data assigned to classes.

29. (original) The method of claim 28, and further comprising reconstructing the first and the second classifier for each class.

30. (original) The method of claim 27, and further comprising:
applying the first classifier to the first unlabeled set to form a first labeled set; and
applying the second classifier to the second labeled set to form a second labeled set.

31. (original) The method of claim 30, and further comprising augmenting the received labeled data with the first labeled set and the second labeled set to form an augmented set.

32. (original) The method of claim 31, and further comprising using the augmented set of labeled data to retrain the first classifier and the second classifier to form a retrained first classifier and a retrained second classifier.

33. (original) The method of claim 30, wherein applying the first classifier to the first unlabeled set includes calculating probabilities that the first classifier is unable to assign some unlabeled data to classes.

34. (original) The method of claim 33, wherein calculating probabilities includes calculating values of uncertainty.

35. (currently amended) The method of claim 34, wherein calculating values of uncertainty includes calculating values of uncertainty ~~relative~~compared to a predetermined threshold.

36. (currently amended) A method of assigning information into classes, the method comprising:

receiving labeled data including instances of data and a label for each instance, the label being indicative of an assigned class for each instance;

receiving unlabeled data including unlabeled instances of data;

constructing a first classifier and a second classifier with the received labeled data;

selecting a first portion of the unlabeled instances of data that is uncertain for the first classifier;

assigning classes to the first portion of the unlabeled data using instances of the second classifier to form a first labeled set;

selecting a second portion of the unlabeled instances of data that is uncertain for the second classifier;

assigning classes to the second portion of the unlabeled instances of data uncertain for the second classifier using the first classifier to form a second labeled set;

modifyingre-constructing the first classifier and the second classifier based onusing the first labeled set and the second labeled set; and

providing the modifiedre-constructed first classifier and the modifiedre-constructed second classifier for use in labeling data that assigns instances to classes.

37. (canceled)

38. (previously presented) The method of claim 36 wherein the modified first classifier and the modified second classifier are used for one of web page classification, bilingual bootstrapping and news page classification.